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(54) Title: TRANSLUCENT SOLID MATRIX ASSAY DEVICE FOR MICROARRAY ANALYSIS

(57) Abstract: The present invention concerns methods and compositions relating to translucent matrix arrays. In certain embodiments, the arrays are reconfigurable. Reconfigurable arrays may be produced using small linker molecules, such as aptamers or affibodies, which preferably bind to an IgG specific portion of antibodies. Such arrays may be used to detect any target that binds selectively or specifically to an IgG. Translucent matrix arrays may utilize cellophane, rayon or a translucent, colloidal form of nitrocellulose to coat the substrate. Other embodiments concern methods of data analysis and apparatus for analyte detection. Certain embodiments concern a total optical assay device (TOAD<sup>TM</sup>), which may be used with GRABBER<sup>TM</sup> slides and/or FOOTPAD<sup>TM</sup> microtiter well assay devices.

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